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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,369	09/18/2003	Charles R. Mahoney	276-77U1	8512

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2005 MARKET STREET, SUITE 2200
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EXAMINER

PENDLETON, BRIAN T

ART UNIT PAPER NUMBER

2644

DATE MAILED: 08/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/666,369	MAHONEY, CHARLES R.	
	Examiner	Art Unit	
	Brian T. Pendleton	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/18/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/18/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, 3, 4, 7 and 8** are rejected under 35 U.S.C. 102(b) as being anticipated by Corris et al, US Patent 4,231,184 (hereafter referenced as Corris).

Regarding **claim 1**, Corris discloses a remote-control doll assembly with a sound control circuit in figure 8 which reads on “A control circuit for an amusement device” comprising microphone 142, amplifier A2, resistors R5, R7, capacitors C1, C2, amplifier A3, resistor R14, diode D1, capacitor C4, resistor R15, amplifier A4, and transistors Q1 and Q2. Microphone 142 reads on “a sound detector configured to detect audible sound signals”. Amplifier A2, resistors R5, R7, capacitors C1, C2 read on “a band-pass filter electrically coupled to the sound detector, the band-pass filter being configured to extract sound signals in a predetermined audible frequency range and to output a corresponding filtered signal” as column 4 lines 39-51 discloses that the amplifier and its associated circuitry (resistors and capacitors) function as a band-pass filter to extract sounds having a frequency of the actuating sound signal and pass the filtered signal to amplifier A3. Amplifier A3, resistor R14, diode D1, capacitor C4, resistor R15 and amplifier A4 read on “a peak integrator electrically coupled to the band-pass filter, the peak integrator being configured to receive the filtered signal, to average peaks of the filtered signal and to output a trigger signal based on a predetermined range of the averaged filter signal”

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wherein amplifier A3 and diode D1 provide a peak detecting function and capacitor C4 and resistor R15 provide an integrating function. The output of amplifier A4 represents the trigger signal. Corris discloses in column 4 line 67 – column 5 line 6 a voltage divider comprising resistors R16 and R17 which provides a reference biasing voltage to the positive input of amplifier A4. The reference biasing voltage represents “a predetermined range of the averaged filter signal”. Transistors Q1 and Q2 and voice unit 46 read on “a controller electrically coupled to the peak integrator, the controller being configured to receive the trigger signal and to provide a control output in response to the trigger signal”. As disclosed in column 5 lines 17-22, Corris discloses that amplifier A4 drives transistors Q1 and Q2 to energize motors 32 and 58, the output of the transistor Q1 representing the control output.

Regarding **claim 3**, as stated previously, Corris discloses motor 32 which is controlled by the output from transistor Q1 (the control output), which reads on “the control output controls one of a light, motor, and a sound output device”.

Regarding **claim 4**, Corris discloses in column 5 lines 41-54 that a toy baby bottle is used to generate the sound used to control the circuitry to energize motors 32 and 58. The toy generates a 14 kHz sound which is bandpass filtered by the circuitry after being picked up by microphone 142. The filtered signal's DC level is compared to the reference biasing voltage in amplifier A4. The amplifier A4 drives the transistors Q1 and Q2 only when the DC signal level at its input approaches that of the reference biasing voltage. Accordingly, the reference biasing voltage is selected based on the 14 kHz sound from the toy baby bottle which reads on “the predetermined range of the averaged filter signal is selected based upon audible frequency characteristics of sound produced by a toy noise maker” wherein the reference biasing voltage

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from resistors R16 and R17 read on "the predetermined range" and the toy baby bottle reads on "a toy noise maker" whereby its output (audible frequency characteristic of sound) matches that of the reference biasing voltage for driving motors 32 and 58.

Regarding **claim 7**, the controller comprises a voice unit 46 which is used to synthesize a crying sound, as disclosed in column 2 lines 39-51, which reads on "the controller is one of a sound synthesizer, a microcontroller, a microprocessor, and an application specific integrated circuit."

Regarding **claim 8**, Corris discloses microphone 142 which reads on "wherein the sound detector is a microphone".

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1 and 2** are rejected under 35 U.S.C. 103(a) as being unpatentable over Goettsche, US Patent 4,394,656 (hereafter referenced as Goettsche) in view of Hata, US Patent 5,501,131 (hereafter referenced as Hata).

Regarding **claim 1**, Goettsche discloses an apparatus for displaying the frequency spectrum of an audio signal producing a lighting effect which reads on "A control circuit for an amusement device" comprising audible sound signals input at resistors 14a, 14b, bandpass filters 16-19, rectifier circuits 21-23, post-rectify filter circuits 20, 24 and 25, comparators 26-28,

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silicon controlled rectifiers (SCR) 41-43 and lighting circuits as shown in figure 1. Bandpass filters 16-19 read on "a band-pass filter...the bandpass filter being configured to extract sound signals in a predetermined audible frequency range and to output a corresponding filtered signal" wherein the predetermined audible frequency range of bandpass filter 19 is between 2 kHz and 10 kHz as disclosed in column 2 lines 52-54. The combination of rectifier 23, post-rectify filter circuit 25, and comparator 28 reads on "a peak integrator electrically coupled to the band-pass filter, the peak integrator being configured to receive the filtered signal, to average peaks of the filtered signal and to output a trigger signal based on a predetermined range of the averaged filter signal" wherein the rectifier 23 generates peak signals, the post-rectify filter circuit 25 uses its integrating capacitor to average the peak signals and comparator 28 produces a trigger signal when its input voltage exceeds that of the average sound level from reference potentiometer 32 (predetermined range of the averaged filter signal) as disclosed in column 3 lines 9-37. The output from comparator 28 is input to SCR 43 which causes a light (light load 52,55) to illuminate which reads on "a controller electrically coupled to the peak integrator, the controller being configured to receive the trigger signal and to provide a control output in response to the trigger signal" wherein SCR 43 reads on "a controller" and its output to the light reads on "a control output". Goettsche discloses that the audible sound signals are obtained from a stereophonic amplifier and does not disclose "a sound detector configured to detect audible sound signals" and accordingly "a band pass filter electrically coupled to the sound detector".

Hata discloses a decorative light blinking device for blinking lights in response to changes in sound (music) comprising audio equipment Ad and a plurality of light blinking blocks LBs which contain amplifiers 10, PLL circuits 11, time constant circuits 12, output circuits 13

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and LEDs 14 in figure 1. The signals from the audio equipment Ad are used to drive the LEDs 14 based on the level of the signals in the individual light blinking blocks LBs. Column 6 lines 51-58 suggested an alternative form of the apparatus which uses a microphone to input the music signal to the plurality of LBs. The microphone reads on "a sound detector configured to detect audible sound signals". It would have been obvious to one of ordinary skill in the art at the time of invention to modify the Goettsche apparatus by substituting the source of audio signals from the stereophonic amplifier (audio equipment) to a microphone, as taught by Hata, for the purpose of providing a light display of the audio spectrum of detected sound that can benefit singers and give visual cues of acoustic waves.

Regarding **claim 2**, Goettsche discloses that bandpass filter 19 passes signals between 2 kHz and 10 kHz which reads on "the predetermined range is between about 6.8 kHz and 8.2 kHz" since the filter 19 includes such signals. It would have been obvious to one of ordinary skill in the art at the time of invention to utilize that range in the modified Goettsche invention, per the teachings of Hata, for the purpose of displaying the high frequency content of audible sounds, including high tones produced by singers.

5. **Claims 5 and 6** are rejected under 35 U.S.C. 103(a) as being unpatentable over Corris in view of Davison, US Patent 4,973,286.

Regarding **claim 5**, Corris discloses a remote control doll assembly which is responsive to an external sound from a squeezable baby bottle or a radio frequency signal from a baby bottle or toy rattle, thus having a toy noise maker for actuating sound and movement of the doll. Corris does not disclose "wherein the toy noise maker is shaken to generate the sound". In figure 1, Davison discloses a multiple activation crib toy 10 comprising rattle 23, and cartoon figures 50,

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60, 70. A musical output and motions of the cartoon figures are actuated in response to noise produced in the crib. Column 5 lines 3-26 disclose that a microphone 100 (mistakenly referenced as '45') detects noises within the crib environment and actuates the musical output via electronic circuitry. Noises resulting from manipulation of the rattle 23 actuates the musical output, which reads on "toy noise maker is shaken to generate the sound." It would have been obvious to one of ordinary skill in the art at the time of invention to modify the circuitry of Corris to make it responsive to the sound produced by *shaking* a toy rattle, as taught by Davison, for the purpose of increasing the amusement of the user by having an actuating device that makes playful noise and is easier to manipulate than by squeezing a toy.

Regarding **claim 6**, column 4 line 2 of Davison discloses a rattle 23. It would have been obvious to one of ordinary skill in the art at the time of invention to use rattles as toy noise makers as their use and contribution to a baby's pleasure was well known.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (703) 305-9509. The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BRIAN PENDLETON
PATENT EXAMINER

btp

Brian J. Pendleton